

Claims

- [c1] A redundancy unit comprising:
a first fuse block comprising at least one first fuse;
a second fuse block comprising at least one second fuse; and
a redundant element coupled to the first and second fuse blocks, the redundant element can be programmed by either the first or second fuse blocks.
- [c2] The redundancy unit of claim 1 repairs defects in an integrated circuit.
- [c3] The redundancy unit of claim 1 wherein the redundant element repairs defects in a memory array.
- [c4] The redundancy unit of claim 3 wherein the redundant element comprises a memory cell.
- [c5] The redundancy unit of claim 3 wherein the redundant element comprises memory cells for row redundancy.
- [c6] The redundancy unit of claim 3 wherein the redundant element comprises a memory cells for column redundancy.
- [c7] The redundant unit of claim 1 wherein the first fuse comprises a laser blowable fuse and the second fuse comprises an electrical fuse.
- [c8] The redundancy unit of claim 7 further comprises a selection circuit coupled to between the fuse blocks and redundancy element, the selection circuit selecting either the first or second fuse block for programming the redundancy unit.
- [c9] The redundancy unit of claim 8 wherein the selection circuit comprises an OR or an XOR gate.
- [c10] The redundant unit of claim 7 wherein the electrical fuse comprises an electrical blowable fuse.
- [c11] The redundancy unit of claim 10 further comprises a selection circuit coupled to between the fuse blocks and redundancy element, the selection circuit selecting either the first or second fuse block for programming the redundancy unit.

- [c12] The redundancy unit of claim 10 wherein the selection circuit comprises an OR or an XOR gate.
- [c13] The redundant unit of claim 7 wherein the electrical fuse comprises an anti-fuse.
- [c14] The redundancy unit of claim 13 further comprises a selection circuit coupled to between the fuse blocks and redundancy element, the selection circuit selecting either the first or second fuse block for programming the redundancy unit.
- [c15] The redundancy unit of claim 13 wherein the selection circuit comprises an OR or an XOR gate.
- [c16] The redundancy unit of claim 1 further comprises a selection circuit coupled to between the fuse blocks and redundancy element, the selection circuit selecting either the first or second fuse block for programming the redundancy unit.
- [c17] The redundancy unit of claim 16 wherein the selection circuit comprises an OR or an XOR gate.